



Exhibit 18

U.S. Patent No. 10,237,773 (“773 Patent”)

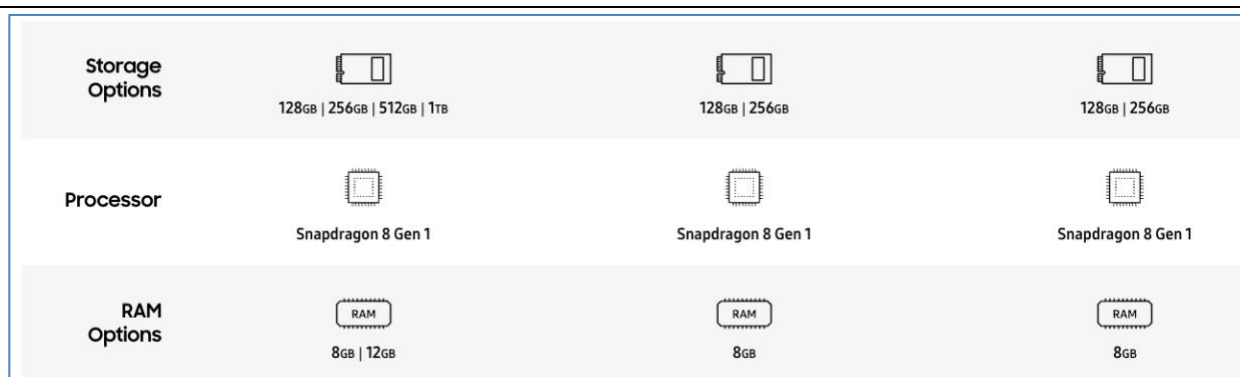
Accused Devices: Samsung Galaxy phones and tablets, and all versions and variations thereof since the issuance of the asserted patent.

Claim 1

Issued Claim(s)	Public Documentation
<p>1. A wireless end-user device, comprising:</p>	<p>Samsung Galaxy phones and tablets are each “a wireless end-user device.” For example, the Galaxy S22 is a “wireless end-user device.”</p> 
<p>a processor;</p>	<p>Samsung Galaxy phones and tablets comprise “a processors” for executing instructions at times “when data communication for Internet service activities is provided by the WWAN modem.”</p> <p>For example, the Galaxy S22 uses a Snapdragon 8 (Gen 1) processor manufactured by Qualcomm. <i>See</i> https://www.qualcomm.com/snapdragon/device-finder/smartphones/samsung-galaxy-s22.</p>

	 <p>Samsung Galaxy S22</p> <p>Powered by Snapdragon 8 Gen 1 Mobile Platform</p> <p>Thanks to the processing power of the Snapdragon 8 Gen 1 Mobile Platform, the Samsung Galaxy S22 is your ultimate tool. Whether you're vlogging your day, gaming all night or simply scrolling your feed, the 4nm processor makes for an incredibly smooth experience.</p> <p>Buy Now</p>
<p>a Wireless Wide-Area Network (WWAN) modem, to communicate data for network service usage activities between the wireless end-user device and a WWAN; and</p>	<p>Samsung Galaxy phones and tablets comprise “a Wireless Wide-Area Network (WWAN) modem, to communicate data for network service usage activities between the wireless end-user device and a WWAN.”</p> <p>For example, the Galaxy S22 comprises wireless modems which communicate with mobile service provider base stations to access a wireless wide area network.</p>

	<p>Network & Connectivity</p> <p>5G</p> <p>5G Non-Standalone (NSA), Standalone (SA), Sub6 / mmWave</p> <p>LTE</p> <p>Enhanced 4x4 MIMO, Up to 7CA, LTE Cat.20 Up to 2.0Gbps Download / Up to 200Mbps Upload</p> <p>Wi-Fi</p> <p>Wi-Fi 802.11 a/b/g/n/ac/ax 2.4G+5GHz+6GHz, HE160, MIMO, 1024-QAM Up to 2.4Gbps Download / Up to 2.4Gbps Upload</p> <p>Bluetooth</p> <p>Bluetooth® v 5.2, USB type-C, NFC, Location(GPS, Galileo, Glonass, BeiDou)</p> <p>Ultra Wide Band</p> <p>*Requires optimal connection. Actual speed may vary depending on country, carrier and user environment. *The bandwidths supported by the device may vary depending on the region or service provider. *Download and upload speeds reaching up to 2.4Gbps only available with Wi-Fi 6E. Wi-Fi 6E only supported on Galaxy S22 Ultra and S22+. Galaxy S22 has Wi-Fi 6. *Galileo and BeiDou coverage may be limited. BeiDou may not be available for certain countries.</p> <p>https://www.samsung.com/us/smartphones/galaxy-s22/models/</p>
<p>a non-transitory computer-readable storage medium storing instructions that, when provided to the processor, cause the processor to</p>	<p>Samsung Galaxy phones and tablets comprise “a non-transitory computer-readable storage medium storing instructions” that provide instructions to the processor as shown by the exemplary citations below.</p> <p>For example, the Galaxy S22 model is sold with 8GB RAM and either 128GB or 256GB non-removable memory storage, in which control policies for applications are stored.</p>



<https://www.samsung.com/us/smartphones/galaxy-s22/buy/galaxy-s22-128gb-unlocked-sm-s901uzkaxaa/>

receive respective requests from a plurality of applications on the device to access the WWAN for background network service usage activities associated with the respective applications,

Samsung Galaxy phones and tablets “receive respective requests from a plurality of applications on the device to access the WWAN for background network service usage activities associated with the respective applications.”

For example, applications running on the Galaxy S22 use ConnectivityManager API, which receives requests from applications to access the WWAN for background network activities.

Optimize network data usage

Over the life of a smartphone, the cost of a cellular data plan can easily exceed the cost of the device itself. On Android 7.0 (API level 24) and higher, users can enable Data Saver on a device-wide basis in order to optimize their device's data usage, and use less data. This ability is especially useful when roaming, near the end of the billing cycle, or for a small prepaid data pack.

When a user enables Data Saver in **Settings** and the device is on a metered network, the system blocks background data usage and signals apps to use less data in the foreground wherever possible. Users can allow specific apps to use background metered data usage even when Data Saver is turned on.

Android 7.0 (API level 24) extends the **ConnectivityManager** API to provide apps with a way to [retrieve the user's Data Saver preferences](#) and [monitor preference changes](#). It is considered good practice for apps to check whether the user has enabled Data Saver and make an effort to limit foreground and background data usage.

	<p>Check data saver preferences</p> <p>On Android 7.0 (API level 24) and higher, apps can use the <code>ConnectivityManager</code> API to determine what data usage restrictions are being applied. The <code>getRestrictBackgroundStatus()</code> method returns one of the following values:</p> <p><code>RESTRICT_BACKGROUND_STATUS_DISABLED</code></p> <p>Data Saver is disabled.</p> <p><code>RESTRICT_BACKGROUND_STATUS_ENABLED</code></p> <p>The user has enabled Data Saver for this app. Apps should make an effort to limit data usage in the foreground and gracefully handle restrictions to background data usage.</p> <p><code>RESTRICT_BACKGROUND_STATUS_WHITELISTED</code></p> <p>The user has enabled Data Saver but the app is allowed to bypass it. Apps should still make an effort to limit foreground and background data usage.</p> <p>Limit data usage whenever the device is connected to a metered network, even if Data Saver is disabled or the app is allowed to bypass it. The following sample code uses <code>ConnectivityManager.isActiveNetworkMetered()</code> and <code>ConnectivityManager.getRestrictBackgroundStatus()</code> to determine how much data the app should use:</p> <p>https://developer.android.com/training/basics/network-ops/data-saver</p>
<p>based at least in part on a current WWAN network busy state, select a corresponding current service usage control policy for the background network service usage activities,</p>	<p>Samsung Galaxy phones and tablets “based at least in part on a current WWAN network busy state, select a corresponding current service usage control policy for the background network service usage activities.”</p> <p>For example, the <code>ConnectivityManager</code> API and the <code>ConnectivityManager.NetworkCallback</code> API select a service usage control policy for background activities when the WWAN state indicates that that the network is congested.</p>

	<div> <div>NET_CAPABILITY_NOT_CONGESTED</div> <div>Added in API level 28</div> <div> <pre>public static final int NET_CAPABILITY_NOT_CONGESTED</pre> </div> <div> <p>Indicates that this network is not congested.</p> <p>When a network is congested, applications should defer network traffic that can be done at a later time, such as uploading analytics.</p> <p>Constant Value: 20 (0x00000014)</p> </div> <div> https://developer.android.com/reference/android/net/NetworkCapabilities. </div> </div>
<p>determine respective deferred time slots for each of the background network service usage activities based on the current service usage control policy, wherein at least one such service usage control policy specifies that during a time when the current WWAN network busy state indicates network congestion, a selected subset of the background network service usage activities are deferred until network congestion is no longer indicated, and</p>	<p>The Galaxy devices and tablets “determine respective deferred time slots for each of the background network service usage activities based on the current service usage control policy, wherein at least one such service usage control policy specifies that during a time when the current WWAN network busy state indicates network congestion, a selected subset of the background network service usage activities are deferred until network congestion is no longer indicated,” as illustrated by the below exemplary citations.</p>

Understanding Doze

If a user leaves a device unplugged and stationary for a period of time, with the screen off, the device enters Doze mode. In Doze mode, the system attempts to conserve battery by restricting apps' access to network and CPU-intensive services. It also prevents apps from accessing the network and defers their jobs, syncs, and standard alarms.

Periodically, the system exits Doze for a brief time to let apps complete their deferred activities. During this *maintenance window*, the system runs all pending syncs, jobs, and alarms, and lets apps access the network.

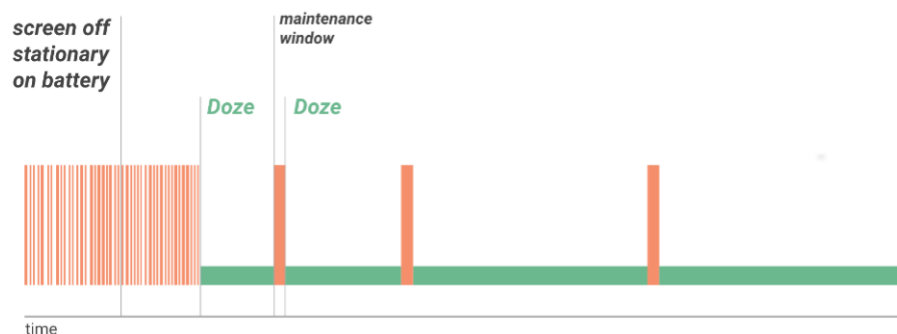


Figure 1. Doze provides a recurring maintenance window for apps to use the network and handle pending activities.

At the conclusion of each maintenance window, the system again enters Doze, suspending network access and deferring jobs, syncs, and alarms. Over time, the system schedules maintenance windows less and less frequently, helping to reduce battery consumption in cases of longer-term inactivity when the device is not connected to a charger.

As soon as the user wakes the device by moving it, turning on the screen, or connecting a charger, the system exits Doze and all apps return to normal activity.

The Doze restriction on network access is also likely to affect your app, especially if the app relies on real-time messages such as tickles or notifications. If your app requires a persistent connection to the network to receive messages, you should use [Firebase Cloud Messaging \(FCM\)](https://firebase.google.com/docs/cloud-messaging/) if possible.

<https://developer.android.com/training/monitoring-device-state/doze-standby>

allow each of the background network service usage activities to access the WWAN during the respective deferred time slot for that background network service usage activity.

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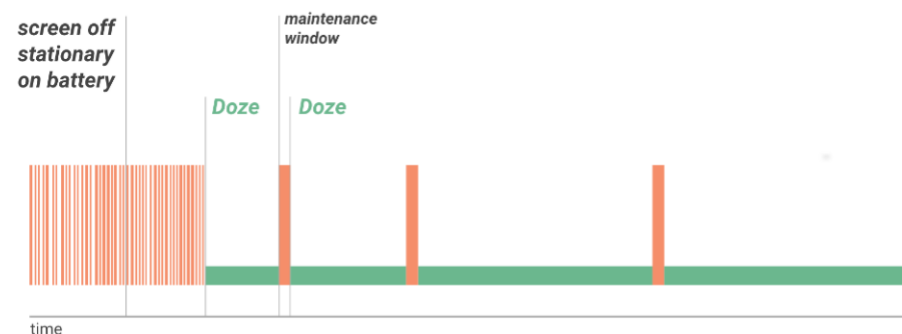


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<https://developer.android.com/training/monitoring-device-state/doze-standby>